

IN THE CLAIMS:

The following is a complete listing of claims in this application.

Claims 1-4 (canceled).

5. (currently amended) Microwave device for interstitial, percutaneous, laparoscopic, endoscopic and intra-operation applications in medicine and surgery, for applications of acute hyperthermia in oncology, comprising:

an inner conductor,

a dielectric layer that covers said inner conductor over its length,

an external conductor that coaxially covers said dielectric layer except for an end portion of the dielectric layer and inner conductor, said external conductor forming together with said dielectric layer and said inner conductor a co-axial antenna,

a stiff hollow needle having a longitudinal axis,
~~coaxially surrounding said antenna~~ for introducing said antenna in a target tissue ~~and which~~ for coaxially guides guiding said antenna ~~into in~~ the target tissue along an introduction direction, wherein said stiff, hollow needle has a distal end portion comprising:

a sharp-ended external face for piercing the target tissue;

~~said needle having in a distal end portion thereof a side opening and a chute guide~~ made through said stiff, hollow needle, said chute guide guiding said antenna through said side opening, causing ~~it~~ said antenna to exit laterally from said sharp-ended external face to enter the target tissue along an actuation direction that forms an angle α with respect to the longitudinal axis of said needle,

said needle, having entered the target tissue, being constructed and arranged to rotate about and translate along the longitudinal axis so as to allow said antenna to cover a desired volume.

6. (previously presented) Microwave device according to claim 5, wherein said needle has, in the distal end portion thereof, a stiff blocking material having a tapered inner face forming said chute guide and a sharp external face.

7. (previously presented) Microwave device according to claim 5, wherein said needle is blind in the distal end portion thereof, said needle having a gradually increasing thickness at said side opening in order to form said chute guide.

8. (previously presented) Microwave device according to claim 5, additionally comprising a flexible metal mandrel which is slidable in said hollow needle in the actuation direction prior to introduction of the antenna therein and which is constructed and arranged to protrude through said side opening for making an inlet hole in the tissue for treatment.